

CLAIMS

What is claimed is:

1. A catalytic converter assembly comprising;  
catalytic conversion components;  
a one piece catalytic converter housing with integral end cone, said converter housing including an opening for receiving the conversion components;  
and  
a second end cone which is welded to said catalytic converter housing such that a weld joint is formed between said housing and said second end cone.
2. The catalytic converter assembly of claim 1, wherein said catalytic converter housing with integral end cone is formed by casting.
3. The catalytic converter assembly of claim 2, wherein said catalytic converter housing with integral end cone casting is formed from SiMo iron.
4. The catalytic converter assembly of claim 1, wherein said integral end cone includes a muffler mounting flange.
5. The catalytic converter assembly of claim 1, wherein said muffler mounting flange is located along a free end of said integral end cone.

6. The catalytic converter assembly of claim 1, wherein said weld joint provides a substantially air tight seal between said catalytic converter housing and a said second end cone.

7. The catalytic converter assembly of claim 1, wherein said second end cone integrally extends from an exhaust manifold, wherein said second end cone and said second exhaust manifold are cast as a single piece.

8. The catalytic converter assembly of claim 1, wherein said catalytic converter housing includes an annular flange having an inwardly angled portion and said second end cone includes a complimentary annular flange having an inwardly angled portion, whereby upon joining said second end cone to said converter housing an annular recess is provided to define said weld joint.

9. The catalytic converter assembly of claim 1, wherein said catalytic converter further comprises a mounting mat disposed adjacent an inner wall defining said opening and a filtering substrate disposed within said mounting mat.

10. The catalytic converter assembly of claim 1, further comprising a mantle disposed within said catalytic converter housing for receiving a filtering substrate.

11. The catalytic converter assembly of claim 10, wherein said mantle includes an outwardly extending lip which is sandwiched between said catalytic converter housing and said second end cone.

12. The catalytic converter assembly of claim 11, wherein said weld joint occurs along a junction defined by said catalytic converter housing, and said second end cone and said mantle.

13. The catalytic converter assembly of claim 12, wherein said catalytic converter housing includes an annular flange having an inwardly angled portion and said second end cone includes a complimentary annular flange having an inwardly angled portion, whereby upon joining said second end cone to said converter housing an annular recess is provided to define said weld joint.

14. A method of manufacturing a catalytic converter assembly comprising the steps of :

- a) providing catalytic conversion components;
- b) providing a one piece catalytic converter housing and integral end cone, said housing including an opening for receiving said catalytic conversion components;
- c) disposing the catalytic converter components within the opening of said catalytic converter housing;

- d) attaching a second end cone portion to said catalytic converter housing to capture the catalytic converter within said catalytic converter assembly; and
- e) welding the second end cone to said one piece catalytic converter housing and integral end cone to form the catalytic converter assembly.

15. The method according to claim 14, wherein a mantle for receiving a filtering substrate is disposed within said catalytic converter housing opening said mantle including an outwardly extending lip disposed between said housing and said second end cone prior to welding the second end cone to the one piece catalytic converter housing.

16. The method according to claim 14, wherein said second end cone integrally extends from an exhaust manifold, wherein said second end cone and said exhaust manifold are cast as a single piece.